

Claims:

1. A method for extracting packetized data from a SONET/SDH signal, said method comprising:

a) processing the SONET/SDH signal to provide a deskewed data stream;

b) demapping the data stream to produce a stream of packets;

c) storing the packets in a packet buffer; and

d) monitoring the fullness of the packet buffer, wherein

said demapping is performed at a first rate when the fullness of the buffer is below a fullness threshold, and

said demapping is performed at a second rate when the fullness of the buffer is at or above the fullness threshold.

2. The method according to claim 1, wherein:

the first rate is faster than the input rate of the SONET/SDH signal.

3. The method according to claim 2, wherein:

the second rate is substantially equal to the input rate of the SONET/SDH signal.

4. The method according to claim 3, wherein:

the first rate is substantially the maximum rate of the apparatus used to perform the demapping.

5. An apparatus for extracting packetized data from a SONET/SDH signal, said apparatus comprising:

a) SONET/SDH signal processing means for processing the SONET/SDH signal to provide a deskewed data stream;

b) a demapper coupled to said SONET/SDH signal processing means for demapping the data stream to produce a stream of packets;

c) a packet buffer coupled to said demapper for temporarily storing the packets; and

d) a fullness monitor coupled to the packet buffer and the demapper for monitoring the fullness of the packet buffer and adjusting the rate of the demapper, wherein

said demapper operates at a first rate when the fullness of the buffer is below a fullness threshold, and

said demapper operates at a second rate when the fullness of the buffer is at or above the fullness threshold.

6. The apparatus according to claim 5, wherein:

the first rate is faster than the input rate of the SONET/SDH signal.

7. The apparatus according to claim 6, wherein:

the second rate is substantially equal to the input rate of the SONET/SDH signal.

8. The apparatus according to claim 7, wherein:

the first rate is substantially the maximum rate of the demapper.